

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Currently Amended) An optical recording apparatus comprising:

a light source for generating a light spot used for information recording;

detection means of detecting an aberration amount of the light spot as an aberration detection signal S or detecting a signal associated with the aberration amount, as an aberration detection signal S; and

control means of controlling an output of the light source by use of the detected aberration amount or the detected associated signal;

wherein said control means controls the output of the light source so that the output of the light source for recording is  $P_0/(1-K \cdot S^2)$  where K is a predetermined constant and  $P_0$  is the light source output for recording on condition that there is no aberration, or

said control means controls the output of the light source so that the output of the light source for recording is  $P_i(1-K \cdot S_i^2)/(1-K \cdot S^2)$  where K is a predetermined constant and  $P_i$  is the light source output for recording on condition that  $S_i$  is obtained as the aberration detection signal, said  $P_i$  and  $S_i$  are obtained by initial learning when the recording operation is performed.

2. (Cancelled).
3. (Original) An optical recording apparatus according to claim 1, wherein said aberration amount is substantially a spherical aberration amount and/or a coma aberration amount.
4. (Original) An optical recording apparatus according to claim 3, wherein said detection means is capable of detecting the spherical aberration amount and the

coma aberration amount, and outputs the spherical aberration amount as a spherical aberration detection signal S1 and outputs the coma aberration amount as a coma aberration detection signal S2, and wherein said control means controls the output of the light source so that, when the output of the light source necessary for the recording under a condition where  $S_1=S_2=0$  is  $P_0$ , the output is  $P_0/(1-K \cdot (S_1^2+S_2^2))$  for a predetermined constant K.

5. (Original) An optical recording apparatus according to claim 3, wherein said information recording is performed on an optical disk, wherein said detection means detects and outputs a tilt amount of the optical disk as the signal associated with the aberration amount, and wherein the coma aberration amount is calculated based on a predetermined relationship that holds between the coma aberration amount and the tilt amount.

6. (Currently Amended) An optical recording apparatus according to claim 1, 2, wherein said information recording is stopped when  $1/(1-K \cdot S^2) > 1.5$ .

7. (Cancelled)

8. (Currently Amended) An optical recording method of controlling a light source for generating a light spot used for information recording, said method comprising:

~~a detection step of detecting an aberration amount of the light spot or a signal associated with the aberration amount; and~~

~~— a control step of controlling an output of the light source by use of the detected aberration amount or the associated signal.~~

detecting an aberration amount of the light spot as an aberration detection signal S or detecting a signal associated with the aberration amount, as an aberration detection signal S; and

controlling an output of the light source by use of the detected aberration amount or the detected associated signal;

wherein controlling the output of the light source is such that the output of the light source for recording is  $P_0/(1-K \cdot S^2)$  where K is a predetermined constant and  $P_0$  is the light source output for recording on condition that there is no aberration, or

controlling the output of the light source is such that the output of the light source for recording is  $P_i(1-K \cdot S_i^2)/(1-K \cdot S^2)$  where K is a predetermined constant and  $P_i$  is the light source output for recording on condition that  $S_i$  is obtained as the aberration detection signal, said  $P_i$  and  $S_i$  are obtained by initial learning when the recording operation is performed.

9. (Currently Amended) A computer-executable program, for causing a computer to function as all or part of the control means of the used by an optical recording apparatus according to any one of claims 1 to 7 having a light source for generating a light spot used for information recording and a detector for detecting an aberration amount of the light spot as an aberration detection signal S or detecting a signal associated with the aberration amount as an aberration detection signal S, said computer-executable program performing the following steps:

(a) controlling an output of the light source using the aberration detection signal S;

in which said step (a) includes the following step:

(a1) controlling the output of the light source so that the output of the light source for recording is  $P_0/(1-K \cdot S^2)$ , where K is a predetermined constant and  $P_0$  is the light source output for recording on condition that there is no aberration, or

(a2) controlling the output of the light source so that the output of the light source for recording is  $P_i(1-K \cdot S_i^2)/(1-K \cdot S^2)$  where K is a predetermined constant and  $P_i$  is the light source output for recording on condition that  $S_i$  is obtained as the aberration detection signal,

in which said step (a2) includes the following step:

obtaining said Pi and Si by initial learning when the recording operation is performed.

10. (Cancelled)
11. (Cancelled)
12. (Cancelled)